

Application No. 10/465,789
Amendment dated April 5, 2005
Reply to Office Action of October 5, 2004

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 21-25. Canceled.

26. (New) A method for cleavage of a double-stranded DNA molecule characterized by a distorted structure, wherein said distorted structure results from a Dewar isomer of 6-4 photoproduct, dihydrouracil, uracil, an abasic site, mismatched nucleotide pairing, a platinum-DNA GG diadduct, an insertion or deletion loop of less than five nucleotides, said method comprising the step of contacting a DNA molecule characterized by a distorted structure with a broadly specific DNA damage endonuclease selected from the group of endonucleases selected from the group consisting of a stable truncated Uve1p identified by the amino acid sequence as given in SEQ ID NO:4, wherein said Uve1p is at least 90% pure, and a fusion protein comprising a stable truncated Uve1p and a heterologous sequence, wherein said fusion protein is identified by the amino acid sequence given in SEQ ID NO:6, under conditions allowing for enzymatic activity of said endonuclease.
27. (New) The method of claim 26 wherein said truncated Uve1p is at least 90% pure and has the amino acid sequence given in SEQ ID NO:4.
28. (New) The method of claim 26 wherein said fusion protein has the amino acid sequence given in SEQ ID NO:6.